CLAIM AMENDMENTS

Please amend Claim 1(~~strikethrough~~ for deletion and underline for insertion):

1. (Cancel).

2. (Cancel).

3. (Previously Presented) The method for analyzing physical and/or chemical properties of the surface layer of a solid comprising activation of said surface by low temperature plasma followed by deactivation of the surface layer and recording of the thermoluminescense spectrum, wherein the temperature plasma with a plasma generating gas pressure from 4 to 8 Pa for a period from 0.05 s to 5 s is used, radiation spectra are recorded at a constant temperature of the sample, and additional information on physical and chemical reactions in the surface layer of the solid is obtained from said radiation spectra showing the decreases in luminsescence from the moment the sample activation by the low-temperature plasma is over.